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POLTORAK, ALEXANDER

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| Pro | Leu | Arg | His | Leu | Gly | Ser | Tyr | Ser | Phe | Phe | Ser | Phe | Pro | Glu | Leu | 65 | 70 | 75 |
| Gln | Val | Leu | Asp | Leu | Ser | Arg | Cys | Glu | Ile | Gln | Thr | Ile | Glu | Asp | Gly | 85 | 90 | 95 |
| Ala | Tyr | Gln | Ser | Leu | Ser | His | Leu | Ser | Thr | Leu | Ile | Leu | Thr | Gly | Asn | 100 | 105 | 110 |
| Pro | Ile | Gln | Ser | Leu | Ala | Leu | Gly | Ala | Phe | Ser | Gly | Leu | Ser | Ser | Leu | 115 | 120 | 125 |
| Gln | Lys | Leu | Val | Ala | Val | Glu | Thr | Asn | Leu | Ala | Ser | Leu | Glu | Asn | Phe | 130 | 135 | 140 |
| Pro | Ile | Gly | His | Leu | Lys | Thr | Leu | Lys | Glu | Leu | Asn | Val | Ala | His | Asn | 145 | 150 | 155 |
| Leu | Ile | Gln | Ser | Phe | Lys | Leu | Pro | Glu | Tyr | Phe | Ser | Asn | Leu | Thr | Asn | 165 | 170 | 175 |
| Leu | Glu | His | Leu | Asp | Leu | Ser | Ser | Asn | Lys | Ile | Gln | Ser | Ile | Tyr | Cys | 180 | 185 | 190 |
| Thr | Asp | Leu | Arg | Val | Leu | His | Gln | Met | Pro | Leu | Leu | Asn | Leu | Ser | Leu | 195 | 200 | 205 |
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| Glu | Ile | Arg | Leu | His | Lys | Leu | Thr | Leu | Arg | Asn | Asn | Phe | Asp | Ser | Leu | 225 | 230 | 235 |
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| Ser Leu Gln Val Leu | Asn Met Ser His | Asn Asn Phe Phe | Ser Leu Asp | | | |
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| Thr Phe Pro Tyr Lys | Cys Leu Asn Ser | Leu Gln Val Leu | Asp Tyr Ser | | | |
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| Leu Asn His Ile Met | Thr Ser Lys Lys | Gln Glu Leu Gln | His Phe Pro | | | |
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| Glu Glu Gly Val Pro | Pro Phe Gln Leu | Cys Leu His Tyr | Arg Asp Phe | | | |
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| Ile Pro Gly Val Ala | Ile Ala Ala Asn | Ile Ile His Glu | Gly Phe His | | | |
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| Lys Ser Arg Lys Val | Ile Val Val Val | Ser Gln His Phe | Ile Gln Ser | | | |
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Glu His Val Asp Leu Ser Tyr Asn Tyr Ile Gln Thr Ile Ser Val Lys
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 Arg Leu Ala Tyr Leu Asp Tyr Tyr Leu Asp Asp Ile Ile Asp Leu Phe
 290 295 300
 Asn Cys Leu Thr Asn Val Ser Ser Phe Ser Leu Val Ser Val Thr Ile
 305 310 315 320
 Glu Arg Val Lys Asp Phe Ser Tyr Asn Phe Gly Trp Gln His Leu Glu
 325 330 335
 Leu Val Asn Cys Lys Phe Gly Gln Phe Pro Thr Leu Lys Leu Lys Ser
 340 345 350
 Leu Lys Arg Leu Thr Phe Thr Ser Asn Lys Gly Gly Asn Ala Phe Ser
 355 360 365
 Glu Val Asp Leu Pro Ser Leu Glu Phe Leu Asp Leu Ser Arg Asn Gly
 370 375 380
 Leu Ser Phe Lys Gly Cys Cys Ser Gln Ser Asp Phe Gly Thr Thr Ser
 385 390 395 400
 Leu Lys Tyr Leu Asp Leu Ser Phe Asn Gly Val Ile Thr Met Ser Ser
 405 410 415
 Asn Phe Leu Gly Leu Glu Gln Leu Glu His Leu Asp Phe Gln His Ser
 420 425 430
 Asn Leu Lys Gln Met Ser Glu Phe Ser Val Phe Leu Ser Leu Arg Asn
 435 440 445
 Leu Ile Tyr Leu Asp Ile Ser His Thr His Thr Arg Val Ala Phe Asn
 450 455 460
 Gly Ile Phe Asn Gly Leu Ser Ser Leu Glu Val Leu Lys Met Ala Gly
 465 470 475 480

Asn Ser Phe Gln Glu Asn Phe Leu Pro Asp Ile Phe Thr Glu Leu Arg
 485 490 495
 Asn Leu Thr Phe Leu Asp Leu Ser Gln Cys Gln Leu Glu Gln Leu Ser
 500 505 510
 Pro Thr Ala Phe Asn Ser Leu Ser Ser Leu Gln Val Leu Asn Met Ser
 515 520 525
 His Asn Asn Phe Phe Ser Leu Asp Thr Phe Pro Tyr Lys Cys Leu Asn
 530 535 540
 Ser Leu Gln Val Leu Asp Tyr Ser Leu Asn His Ile Met Thr Ser Lys
 545 550 555 560
 Lys Gln Glu Leu Gln His Phe Pro Ser Ser Leu Ala Phe Leu Asn Leu
 565 570 575
 Thr Gln Asn Asp Phe Ala Cys Thr Cys Glu His Gln Ser Phe Leu Gln
 580 585 590
 Trp Ile Lys Asp Gln Arg Gln Leu Leu Val Glu Val Glu Arg Met Glu
 595 600 605
 Cys Ala Thr Pro Ser Asp Lys Gln Gly Met Pro Val Leu Ser Leu Asn
 610 615 620
 Ile Thr Cys Gln Met Asn Lys Thr Ile Ile Gly Val Ser Val Leu Ser
 625 630 635 640
 Val Leu Val Val Ser Val Val Ala Val Leu Val Tyr Lys Phe Tyr Phe
 645 650 655
 His Leu Met Leu Leu Ala Gly Cys Ile Lys Tyr Gly Arg Gly Glu Asn
 660 665 670
 Ile Tyr Asp Ala Phe Val Ile Tyr Ser Ser Gln Asp Glu Asp Trp Val
 675 680 685
 Arg Asn Glu Leu Val Lys Asn Leu Glu Glu Gly Val Pro Pro Phe Gln
 690 695 700
 Leu Cys Leu His Tyr Arg Asp Phe Ile Pro Gly Val Ala Ile Ala Ala
 705 710 715 720
 Asn Ile Ile His Glu Gly Phe His Lys Ser Arg Lys Val Ile Val Val
 725 730 735
 Val Ser Gln His Phe Ile Gln Ser Arg Trp Cys Ile Phe Glu Tyr Glu
 740 745 750
 Ile Ala Gln Thr Trp Gln Phe Leu Ser Ser Arg Ala Gly Ile Ile Phe
 755 760 765
 Ile Val Leu Gln Lys Val Glu Lys Thr Leu Leu Arg Gln Gln Val Glu
 770 775 780
 Leu Tyr Arg Leu Leu Ser Arg Asn Thr Tyr Leu Glu Trp Glu Asp Ser
 785 790 795 800
 Val Leu Gly Arg His Ile Phe Trp Arg Arg Leu Arg Lys Ala Leu Leu

| | | | | | | | | | | | | | | | | | |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|--|--|
| 245 | | | | | | | | | 250 | | | | | 255 | | | |
| Leu | Ile | Leu | Gly 260 | Glu | Phe | Lys | Asp | Glu 265 | Arg | Asn | Leu | Glu | Ile 270 | Phe | Glu | | |
| Pro | Ser | Ile 275 | Met | Glu | Gly | Leu | Cys 280 | Asp | Val | Thr | Ile | Asp 285 | Glu | Phe | Arg | | |
| Leu | Thr 290 | Tyr | Thr | Asn | Asp | Phe 295 | Ser | Asp | Asp | Ile | Val 300 | Lys | Phe | His | Cys | | |
| Leu 305 | Ala | Asn | Val | Ser | Ala 310 | Met | Ser | Leu | Ala | Gly 315 | Val | Ser | Ile | Lys | Tyr 320 | | |
| Leu | Glu | Asp | Val | Pro 325 | Lys | His | Phe | Lys | Trp 330 | Gln | Ser | Leu | Ser | Ile 335 | Ile | | |
| Arg | Cys | Gln | Leu 340 | Lys | Gln | Phe | Pro | Thr 345 | Leu | Asp | Leu | Pro | Phe 350 | Leu | Lys | | |
| Ser | Leu 355 | Thr | Leu | Thr | Met | Asn 360 | Lys | Gly | Ser | Ile | Ser | Phe 365 | Lys | Lys | Val | | |
| Ala 370 | Leu | Pro | Ser | Leu | Ser | Tyr 375 | Leu | Asp | Leu | Ser | Arg 380 | Asn | Ala | Leu | Ser | | |
| Phe 385 | Ser | Gly | Cys | Cys | Ser 390 | Tyr | Ser | Asp | Leu | Gly 395 | Thr | Asn | Ser | Leu | Arg 400 | | |
| His | Leu | Asp | Leu | Ser 405 | Phe | Asn | Gly | Ala | Ile 410 | Ile | Met | Ser | Ala | Asn 415 | Phe | | |
| Met | Gly | Leu | Glu 420 | Glu | Leu | Gln | His | Leu 425 | Asp | Phe | Gln | His | Ser 430 | Thr | Leu | | |
| Lys | Arg | Val 435 | Thr | Glu | Phe | Ser | Ala 440 | Phe | Leu | Ser | Leu | Glu 445 | Lys | Leu | Leu | | |
| Tyr 450 | Leu | Asp | Ile | Ser | Tyr | Thr 455 | Asn | Thr | Lys | Ile | Asp 460 | Phe | Asp | Gly | Ile | | |
| Phe 465 | Leu | Gly | Leu | Thr | Ser 470 | Leu | Asn | Thr | Leu | Lys 475 | Met | Ala | Gly | Asn | Ser 480 | | |
| Phe | Lys | Asp | Asn | Thr 485 | Leu | Ser | Asn | Val | Phe 490 | Ala | Asn | Thr | Thr | Asn 495 | Leu | | |
| Thr | Phe | Leu | Asp 500 | Leu | Ser | Lys | Cys | Gln 505 | Leu | Glu | Gln | Ile | Ser 510 | Trp | Gly | | |
| Val | Phe 515 | Asp | Thr | Leu | His | Arg | Leu 520 | Gln | Leu | Leu | Asn | Met 525 | Ser | His | Asn | | |
| Asn 530 | Leu | Leu | Phe | Leu | Asp | Ser 535 | Ser | His | Tyr | Asn | Gln 540 | Leu | Tyr | Ser | Leu | | |
| Ser 545 | Thr | Leu | Asp | Cys | Ser 550 | Phe | Asn | Arg | Ile | Glu 555 | Thr | Ser | Lys | Gly | Ile 560 | | |
| Leu | Gln | His | Phe | Pro 565 | Lys | Ser | Leu | Ala | Phe 570 | Phe | Asn | Leu | Thr | Asn 575 | Asn | | |

Ser Val Ala Cys Ile Cys Glu His Gln Lys Phe Leu Gln Trp Val Lys
 580 585 590
 Glu Gln Lys Gln Phe Leu Val Asn Val Glu Gln Met Thr Cys Ala Thr
 595 600 605
 Pro Val Glu Met Asn Thr Ser Leu Val Leu Asp Phe Asn Asn Ser Thr
 610 615 620
 Cys Tyr Met Tyr Lys Thr Ile Ile Ser Val Ser Val Val Ser Val Ile
 625 630 635 640
 Val Val Ser Thr Val Ala Phe Leu Ile Tyr His Phe Tyr Phe His Leu
 645 650 655
 Ile Leu Ile Ala Gly Cys Lys Lys Tyr Ser Arg Gly Glu Ser Ile Tyr
 660 665 670
 Asp Ala Phe Val Ile Tyr Ser Ser Gln Asn Glu Asp Trp Val Arg Asn
 675 680 685
 Glu Leu Val Lys Asn Leu Glu Glu Gly Val Pro Arg Phe His Leu Cys
 690 695 700
 Leu His Tyr Arg Asp Phe Ile Pro Gly Val Ala Ile Ala Ala Asn Ile
 705 710 715 720
 Ile Gln Glu Gly Phe His Lys Ser Arg Lys Val Ile Val Val Val Ser
 725 730 735
 Arg His Phe Ile Gln Ser Arg Trp Cys Ile Phe Glu Tyr Glu Ile Ala
 740 745 750
 Gln Thr Trp Gln Phe Leu Ser Ser Arg Ser Gly Ile Ile Phe Ile Val
 755 760 765
 Leu Glu Lys Val Glu Lys Ser Leu Leu Arg Gln Gln Val Glu Leu Tyr
 770 775 780
 Arg Leu Leu Ser Arg Asn Thr Tyr Leu Glu Trp Glu Asp Asn Pro Leu
 785 790 795 800
 Gly Arg His Ile Phe Trp Arg Arg Leu Lys Asn Ala Leu Leu Asp Gly
 805 810 815
 Lys Ala Ser Asn Pro Glu Gln Thr Ala Glu Glu Glu Gln Glu Thr Ala
 820 825 830
 Thr Trp Thr
 835